

RESUME
JAMES C. FITZPATRICK

DOCKETED
USNRC

August 12, 2008 (11:00am)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

SUMMARY QUALIFICATIONS:

Thirty years experience in design, construction, and modifications of nuclear power plant structures, piping systems, pressure vessels, and anchorage of mechanical and electrical equipment. Twenty-two years of operating plant engineering support in both the mechanical and structural areas. Responsible for development and implementation of plant design changes, inspection programs, equipment specifications, installation support, outage support, and operability evaluations of degraded components.

EDUCATION AND LICENSES:

Northeastern University, Boston Ma. - M.S. Civil Engineering (1984).
Northeastern University, Boston Ma. - B.S. Civil Engineering (1977).
Registered Professional Engineer - Massachusetts, Vermont.

PROFESSIONAL EXPERIENCE:

AREVA NP, Marlborough, MA (March 2008 – present)
Engineering Supervisor – Plants Sector: BOP Structural and Engineering Mechanics

Providing structural and mechanical engineering services to clients. Responsible for supervision and technical support for team of engineers and support staff.

Entergy Nuclear Northeast - Vermont Yankee (2002 – March 2008.) Sr. Lead Engineer, Design Engineering.

Provided support for License Renewal Project for aging management issues related to FAC and metal fatigue. Responsible for review and acceptance of calculations and reports developed to evaluate environmentally assisted fatigue of ASME Class 1 components. Responsible engineer for development of design change for a pre-emptive structural repair of in-vessel Core Spray piping welds using BWRVIP criteria. Responsible Engineer for implementation and maintenance of the Piping FAC Inspection Program until June 2007. Performed piping component inspection selections, evaluations of inspection results, trending of refueling outage inspection data, updating the CHECWORKS predictive models as required. Developed engineering changes for repair or replacement of piping components. Responsible Engineer for mechanical/structural analyses and modifications associated with extended power uprate. Projects include: Alternate Source Term, Seismic Boundary, Cooling Tower Modifications, and a Revised Stress Analysis of Reactor Feedwater Nozzles. Provided engineering support for ASME Section XI and Reactor Vessel Inspection Programs.

Vermont Yankee Nuclear Power Corp. (1997 - 2002) Senior Engineer, Design Engineering.
Yankee Atomic Electric Company (1991 - 1997) Senior Mechanical Engineer, Vermont Yankee Project.

Cognizant engineer with overall responsibility for development and implementation of a number of Engineering Design Changes including replacement of check valves on the Reactor Feedwater System, seismic supports for control room panels and electrical equipment, new station air compressors with associated piping, and GE Mark 1 Torus piping support modifications. Responsible for structural engineering support for ASME Section XI IWE inspections. Developed acceptance criteria for localized thinning of a GE Mark I containment.

Cognizant engineer for Piping Flow Accelerated Corrosion (FAC) Inspection Program. Responsible for program implementation, establishing and maintaining criteria for selection of systems and components susceptible to FAC. Tasks include CHECWORKS modeling of plant piping systems, development of refueling outage inspection scope, providing on-site engineering support, screening and evaluation of piping components, inspection sample expansion, coordination of repairs and replacements, and maintenance of Program Manual and documentation.

Seismic Capability Engineer for Seismic Qualification Utility Group (SQUG) program. Performed equipment walkdowns, screening evaluations, anchorage calculations, and preparation of licensing submittal for resolution of USI-A46 and the seismic portion of the IPEEE. Developed and implemented design changes to resolve SQUG GIP Criteria Outliers and to resolve Design Basis concerns. Provided mechanical/structural engineering support for procurement of new and replacement equipment. Responsible for development of design specifications and review of seismic qualification test reports. Also provided engineering support and evaluations for ASME Section

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U.S. NUCLEAR REGULATORY COMMISSION

In the Matter of Entergy Nuclear Vermont Yankee LLC

Docket No. 50-271 Official Exhibit No. EY-03-V4

OFFERED by: Applicant/Licensee Intervenor _____

NRC Staff Other _____

IDENTIFIED on 7/23/08 Witness/Panel NEC 4

Action Taken: ADMITTED REJECTED WITHDRAWN

Reporter/Clerk MAC

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XI and Service Water inspection programs. Performed evaluations of degraded Service Water piping components for Generic Letter 90-05 submittals.

Yankee Atomic Electric Company (1988 - 1990) Senior Engineer, Vermont Yankee Project.

Responsible for development of a long term Piping Erosion-Corrosion (FAC) Inspection Program, evaluations of plant piping systems for erosion-corrosion using the EPRI CHEC and CHECMATE codes, and for E/C inspection scope and on-site engineering support for both the 1989 and 1990 refueling outages. Designed seismic modifications and developed finite element models for the control room panels. Provided mechanical/structural support for a number of plant design changes. Developed ASME Code Case N-411 Seismic Response Spectra for the Turbine Building.

Yankee Atomic Electric Company (1986 - 1987) Mechanical Engineer, Vermont Yankee Project.

Provided engineering support for a number of plant design changes to both structures and mechanical systems. Projects included: Modifications to the Torus RHR and Core Spray suction strainers, Seismic Re-analysis Program for safety class piping, Revised LOCA pressure loads in the Steam Tunnel, and the design and installation of New Spent Fuel Racks. Performed evaluation for corrosion of the bottom plates in the Condensate Storage Tank and assisted in preparation of the response to NRC Bulletin 87-01 - Pipe Wall Thinning.

Stone and Webster Engineering Corporation (1984 - 1986)

Mechanical Engineer, Engineering Mechanics Division - Beaver Valley Unit No.2 Project, Responsible for qualification of safety related equipment for deadweight, thermal, seismic, and attached piping loads. Duties included the supervision of an engineering group developing allowable piping reactions for Safety Class equipment and performing ASME III stress analyses of tanks and vessels. Responsible for resolution of piping nozzle overloads between the pipe stress analysis and equipment qualification groups.

CYGNA Energy Services (1980 - 1984)

Senior Engineer (1983-84) - Performed engineering studies, analyses, and developed new designs for a number of modifications at both the Maine Yankee and Vermont Yankee plants. Typical projects included; MY 79-02 Base Plate Reanalysis, MY Auxiliary Feedwater Modifications, VY RCIC Room HVAC and Structural Modifications, and VY Torus Attached Piping Modifications.

Lead Engineer - Group Leader (1982-83) - Group Leader for the Diablo Canyon pipe Support Design Review. Responsible for review and approval of design calculations, supervision of pipe support analysts, conceptual pipe support modifications, and providing technical direction to engineers.

Lead Engineer - Group Leader (1981-82) - Supervised on-site engineering group responsible for the analysis and design of over 100 new pipe rupture restraints for Midland units 1 and 2. Responsible for development and implementation of design criteria and work instructions, providing technical direction to engineers, review and approval of calculations and drawings, resolution of interference's with other groups, and the preparation of status reports and schedules.

Staff Engineer (1980-81) - Responsible for development of computer models and amplified response spectra curves for six structures and the NSSS at Maine Yankee. Developed artificial acceleration time histories to envelope NRC R.G.1.60 Ground Response Spectra. Performed analyses and designed seismic modifications for masonry block walls as required by NRC Bulletin 80-11 for Millstone Unit 1.

Stone and Webster Engineering Corporation (1977 - 1980)

Support Engineer, Engineering Mechanics Division - Assigned to the Structural Mechanics Section on the Beaver Valley Unit 2 Project. Developed computer models for generation of seismic floor response spectra curves used for design of plant structures and equipment. Performed design review of the concrete containment internals structure for increased seismic and pipe rupture loads. Reviewed ASME III Stress Reports for design of containment liner, overlay and insert pads, and containment hatches. Developed finite element models for analysis of ASME III Code Class MC containment piping penetrations. Assisted in the development of TVB, an in-house computer code to determine tornado wind and pressure drop effects on structures. Developed models to perform tornado venting studies for BV-2 plant structures.

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